

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Der Jeou Chou et al.
Serial No. : 10/611,484
Filed : July 1, 2003
Title : *METHODS AND APPARATUS FOR AN
INTEGRATED FAN PUMP COOLING MODULE*
Confirmation Number : 3309
Group Art Unit : 3753
Examiner : Flanigan, Allen J.
USPTO Customer No. : 26707
Attorney Docket No. : 125182.00007

RESPONSE TO RESTRICTION/ELECTION REQUIREMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Restriction Requirement mailed July 27, 2006, Applicants hereby elect, with traverse, Fig. 5 and subspecies DC brushless for prosecution on the merits.

Applicants hereby withdraw Claims 10, 12-14, 17, 19-20, and 23 from further consideration in this Office Action, but reserve the right to prosecute these claims in one or more divisional applications, which may be filed before the close of prosecution of the instant application. As such, a current listing of claims follows these remarks.

Applicants respectfully traverse the Examiner's statement that four distinct species of motor configurations are disclosed to which claims are directed, Fig. 5, Fig. 6, Fig. 7, and an unillustrated embodiment employing a gearing between the fan and

pump impeller. In addition, Applicants respectfully traverse the Examiner's statement that three distinct subspecies of electric motor to which claims are directed: DC brushless, DC brush, and AC motor.

Applicants maintain that claims 1-23, and Figs. 5, 6, and 7 to which the claims are directed, are not patentably distinct. Therefore, Applicants suggest that claims 1-23 should be entitled to examination as a whole. Specifically, Applicants respectfully maintain that even though a particular claim teaches a various characteristic of the invention, each of the embodiments are connected in at least one of design, operation and effect (e.g., neither "independent" nor "distinct"). See MPEP 802.01. For example, each of the embodiments is connected in effect, to provide a compact, efficient cooling apparatus which can be used in conjunction with semiconductor devices. FIG. 1 depicts a fan and pump integrated into a compact module controlled by a drive mechanism. FIGs. 2a and 2b depict a fan/pump module with an integrated heat exchanger and expansion tank. Fig. 3 depicts a fan/pump module having a rectilinear housing. FIGs. 4a and 4b depict a fan/pump module having a heat exchanger positioned adjacent to the fan. Similarly, FIG 5 depicts a cross-section of a fan/pump module having a common axle. FIG. 6 depicts a fan/pump module having a flat magnetic coil. Finally, FIG. 7 depicts a fan/pump module having a fixed axle. Each of the embodiments depicted describes a fan/pump module for cooling. Furthermore, the various motors (DC brushless, DC brush, and AC motor) commonly provide torque to the fan to operate. As such, Applicants again respectfully maintain that the various identified species and subspecies are not patentably distinct.

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Response to Restriction/Election Requirement dated July 27, 2006

No fee is believed due with this submission. However, if a fee is due, the Commissioner is hereby authorized to charge such fee to USPTO Deposit Account No. 17-0055.

Respectfully submitted,

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August 25, 2006

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